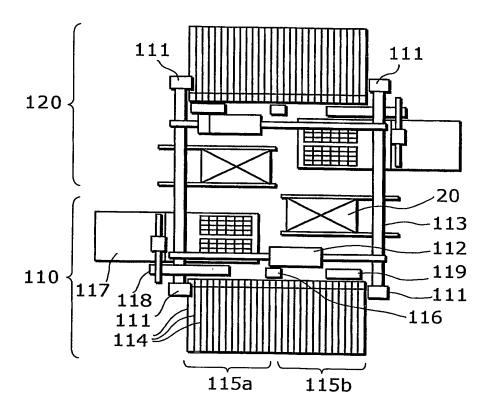
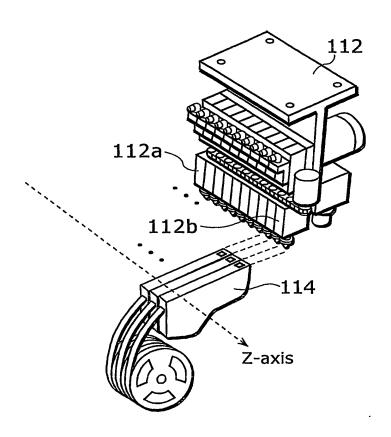


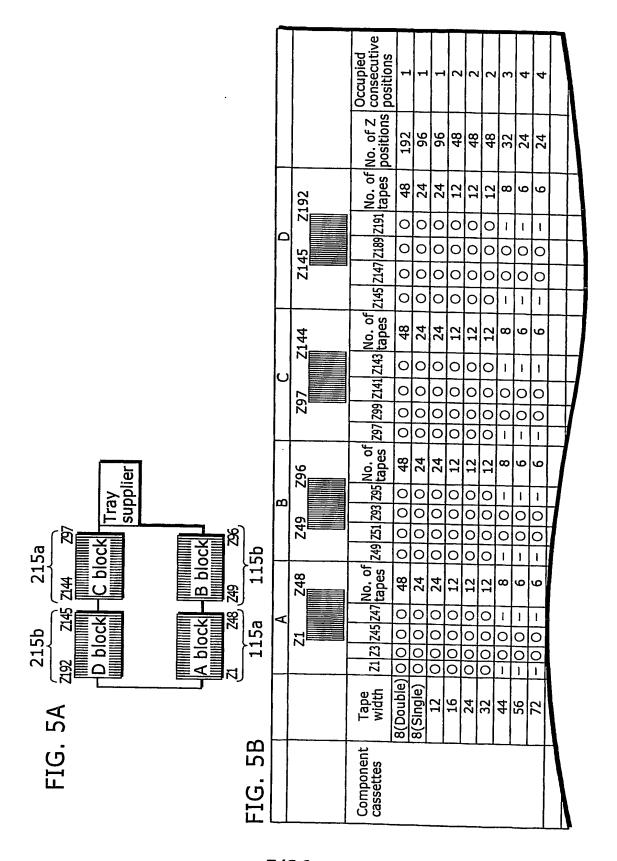
FIG. 2



IC tag memory Logical ,426b demodulation unit Power generation unit Modulation/ Power carrier ()) ((' information ('Component  $_{))}$ 465 IC tag reader/writer 462 463 464 demodulation unit Interface unit Control unit Modulation/ 461

FIG. 4





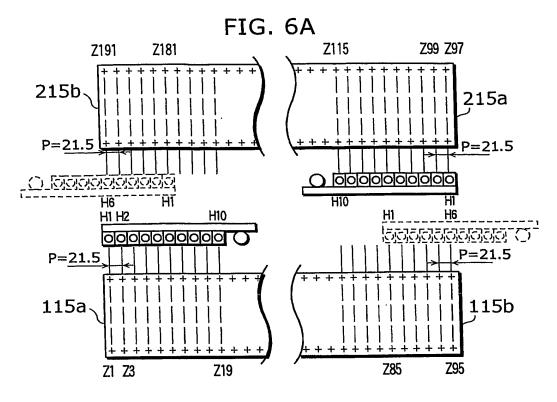


FIG. 6B

10 nozzle heads	Inner side	Z1 Z2	Z3 Z4	Z5 Z6	Z7 Z8	Z9 Z10	Z11 Z12	Z13 Z14	Z15 Z16	Z17 Z18	Z19 ~ Z86	Z87 Z88	Z89 Z90	Z91 Z92	Z93 Z94	Z95 Z96
	Outer side	Z97 Z98			Z103 Z104					7111	Z115 ~ Z182	Z183 Z184	Z185 Z186	Z187 Z188	Z189 Z190	Z191 Z192
	H1	0	0	0	0	0	0	0	0	0	0		_			_
	H2	_	0	0	0	0	0	0	0	0	0	0				_
	НЗ	_	-	0	0	0	0	0	0	0	0	0	0	_		_
	H4	_	_	_	0	0	0	0	0	0	0	0	0	0		
Heads	H5	-	-	-	_	0	0	0	0	0	0	0	0	0	0	_
(Nozzles)	H6	_	<del>-</del>	-	-	-	0	0	0	0	0	0	0	0	0	0
	H7	<b> </b>	-	-	-	_	-	0	0	0	0	0	0	0	0	0
	H8	<del>  -</del>	1-	1-	1-	T-	-		0	0	0	0	0	0	0	0
	H9	-	T-	1-	-				_	0	0	0	0	0	0	0
	H10	-	_	-	_	<u> </u>		_	-	_	0	0	0	0	0	0

○: Picking up possible

-: Picking up impossible

FIG. 7A FIG. 7B FIG. 7C FIG. 7D

423a 423b 423c 423d

FIG. 8

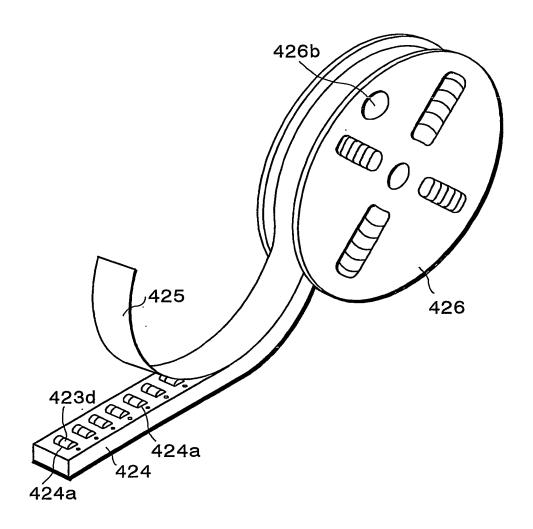
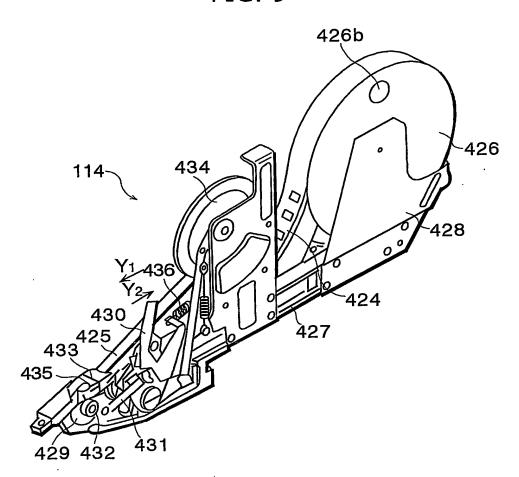


FIG. 9



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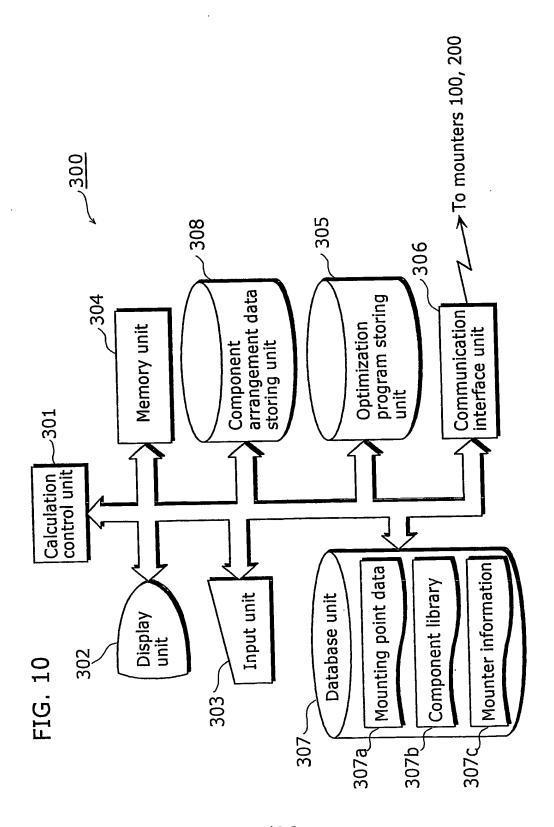


FIG. 11

,307a

Mounting points pi=(Component type Ci, X coordinate Xi, Y coordinate Yi, Control data  $\phi$ i)

NC data is a list of mounting points pi

NC data =  $\begin{pmatrix} p_1 \\ p_2 \\ p_3 \\ p_3 \\ \vdots \end{pmatrix}$  =  $\begin{pmatrix} c_1, x_1, y_1, \phi_1 \\ c_2, x_2, y_2, \phi_2 \\ c_3, x_3, y_3, \phi_3 \\ \vdots \\ \vdots \\ p_N \end{pmatrix}$   $\begin{pmatrix} c_1, x_1, y_1, \phi_1 \\ c_2, x_2, y_2, \phi_2 \\ c_3, x_3, y_3, \phi_3 \\ \vdots \\ \vdots \\ p_N \end{pmatrix}$ 

FIG. 12

	•					<b>307b</b>		
Component name	(Appea- rance)	3.20 (11111)			2-D recognition	Pick-up	Tact time	Speed
name	rance)	X	Υ	L	method	nozzle	(sec.)	XY
0603CR		0.6	0.3	0.25		SX	0.006	
1005CR		1.0	1.0 0.5 0.3-0.5		SA	0.086		
1608CR	•	1.6	0.8	0.4-0.8	•		0.094	
2012CR		2.0	1.25	0.4-0.8		S		
3216CR		3.2	1.6	0.4-0.8				1
4TR	(Je	2.8	2.8	1.1				_
6TR	<b>Sector</b>	4.3	4.5	1.5				l
1TIP		2.0	φ1.0	-		Cylindrical		
2TIP	ODD	3.6	φ1.4	-		tip	0.11	
1CAP		3.8	1.9	1.6				
2CAP		4.7	2.6	2.1		S		<u> </u>
3CAP		6.0	3.2	2.5				
4CAP		7.3	4.3	2.8	Reflection	NA		į
SCAP	)	4.3	4.3	6.0		M		[
LCAP		6.6	6.6	6.0				
LLCAP	)	10.3	10.3	10.5		ML		
1VOL		4.5	3.8	1.6-2.4				
2VOL		3.7	3.0	1.6		M	0.13	2
3VOL		4.8	4.0	3.0			3,13	<u>-</u>
							;	

FIG. 13

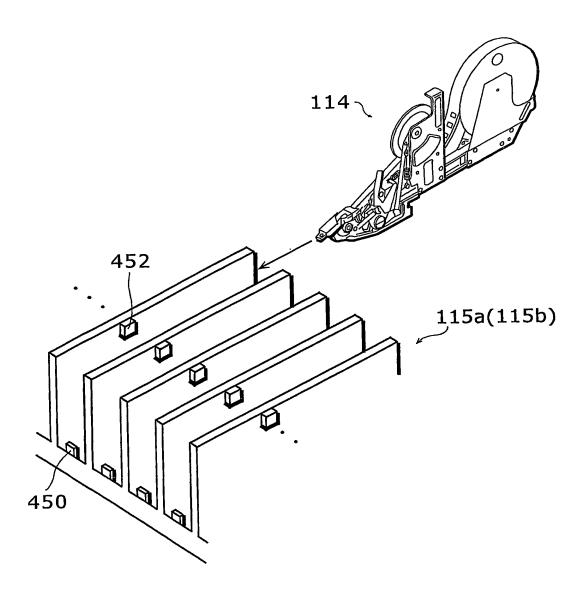
\_307c

Unit ID	Head information	Nozzle information	Cassette information	Tray information	
110	10 nozzle heads	SX,SA,···	96	8 levels	
120	10 nozzle heads	None	96	None	
210	4 nozzle heads	S,M,···	48	None	

FIG. 14

Component name	Unit ID	Z number		
0603CR	110	5		
1005CR	120	8		
1608CR	210	4		
2012CR	120	22		

FIG. 15



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FIG. 16

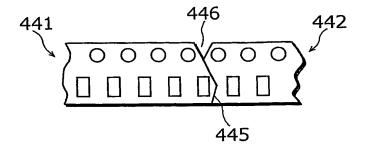
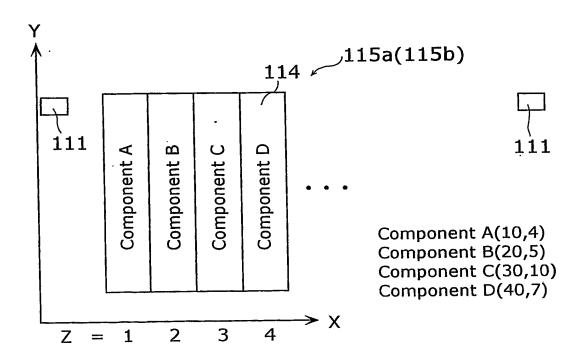


FIG. 17



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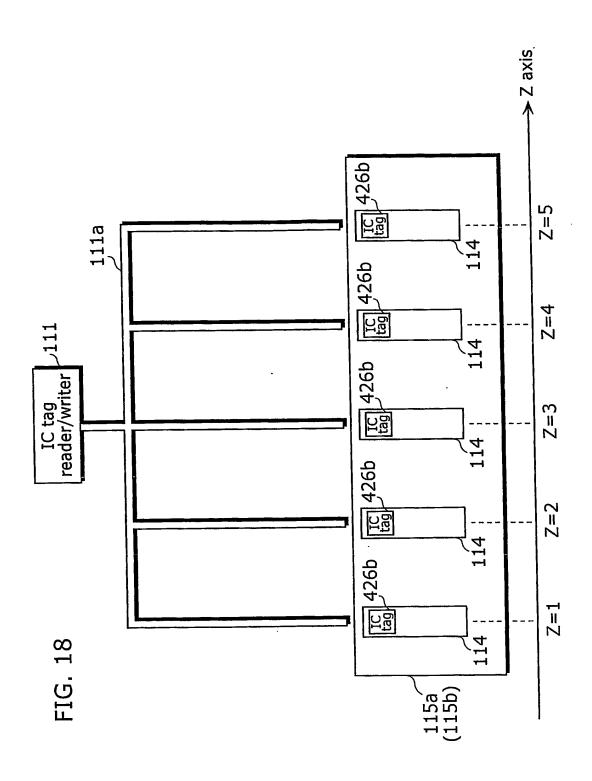


FIG. 19

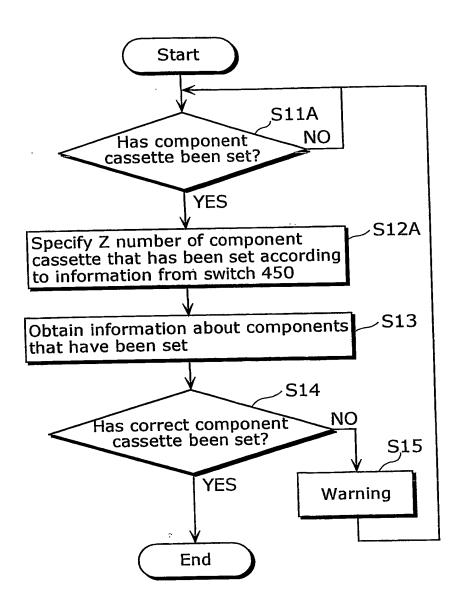


FIG. 20 Start **S11B** Has component cassette been set? NO **S12B** YES Specify Z number of component cassette that has been set according to signal from IC tag readers/writers 111 S13 Obtain information about component tape that has been set S14 NO Has correct component cassette been set? S,15 YES Warning

End

FIG. 21

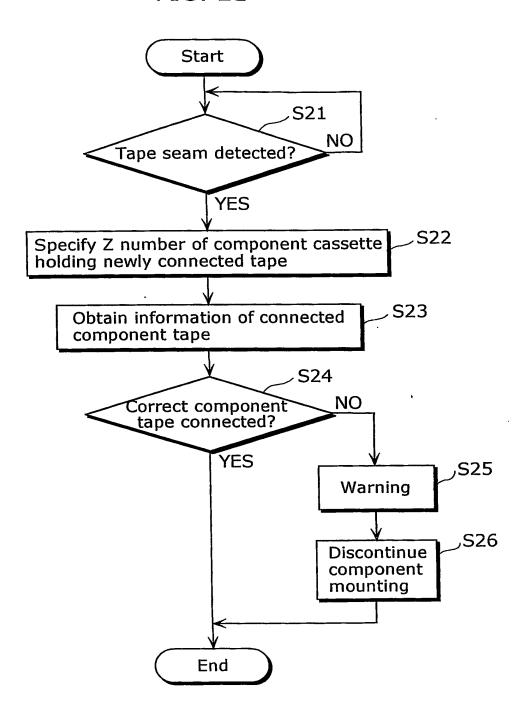


FIG. 22 Start .S31 NO Component mounting? **YES** Decrement remaining number of components √S32 Write manufacturing ∠S33 information S34 NO Remaining number of components < threshold? YES S35 Warning ,S36 NO Remaining number of components=0? YES S37 Discontinue component mounting End

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Specify Z number of each component cassette that has been set according to information from switch 450

Obtain information about each component cassette that has been set

Generate component arrangement data

End

S1A

S1A

S2A

S2A

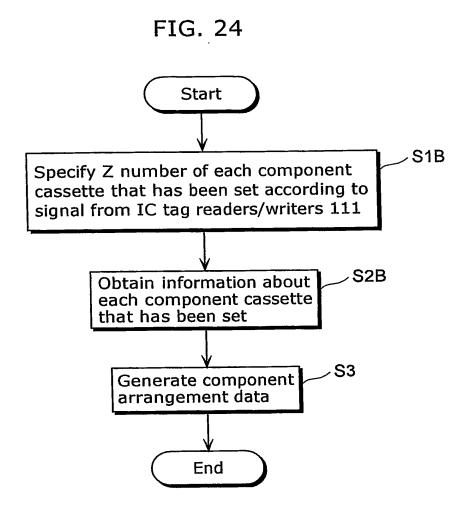
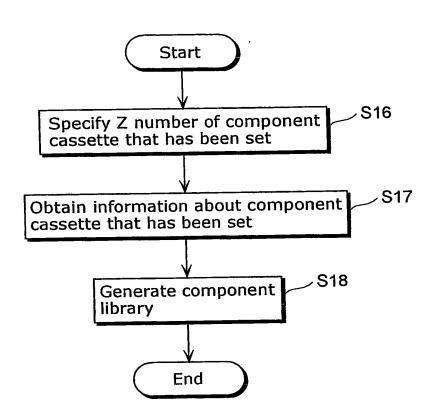
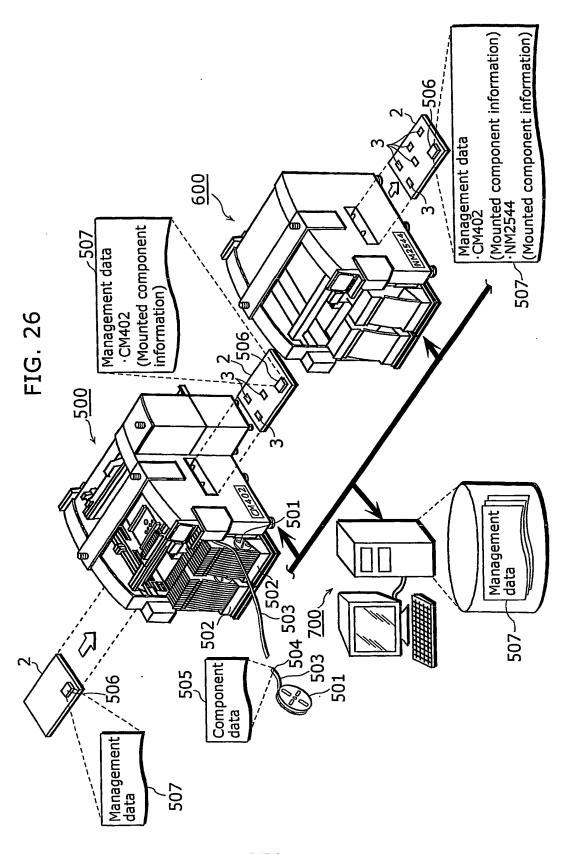
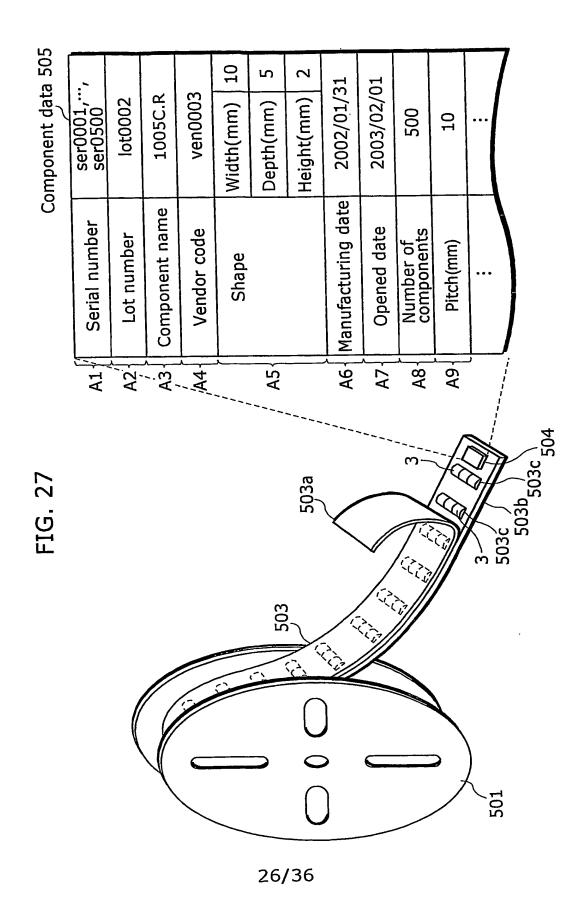


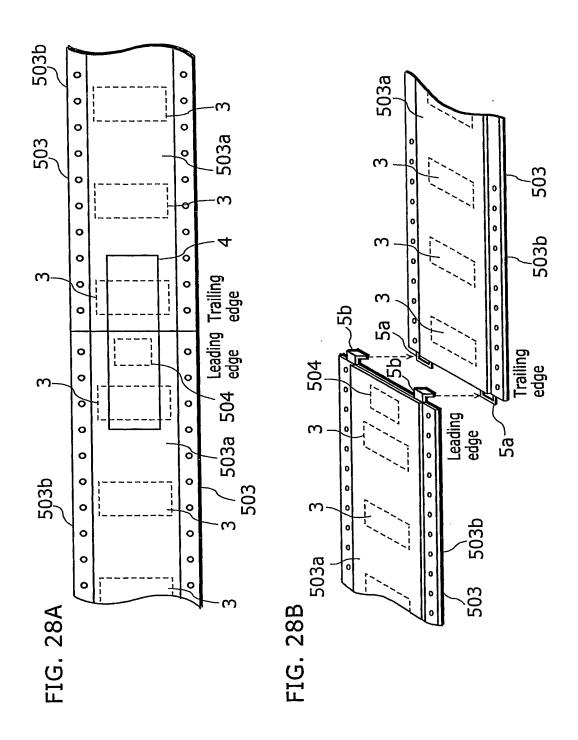
FIG. 25

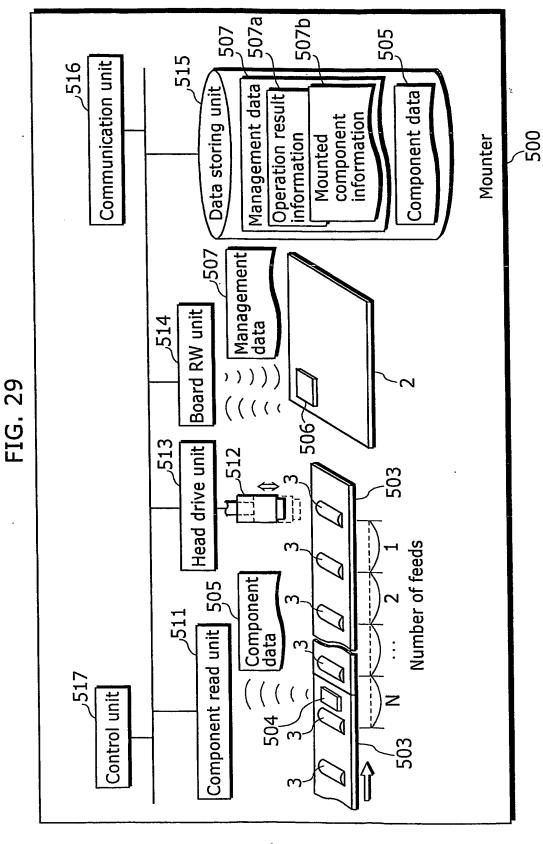


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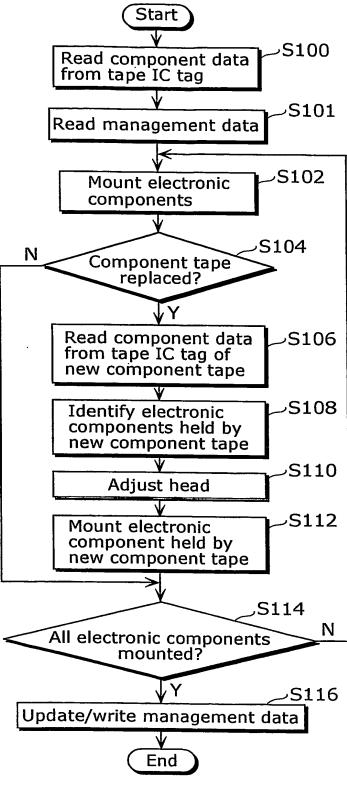
FIG. 30

7a 7a	CI		<del></del> -						7
Operation result information 507a	Bé	,	Index	Idx 01		:		:	
⊇. C			Step	100				:	
	B5	Error	Code	MC0005	/01/06 35 sec PTESTA 2003/01/06 MC0005 16:34 11:16:55			:	
			Date/time of	2003/01/06	11:16:55		:	•	
	B4		B	PTESTA	)		•	:	
	Lot number:PB01Rt		Tact		35 sec		:		
d ID:PB01ID/			number: PB01R B2 Date/time of insertion		2002/01/06	CM402 2003/01/06 11:16:34		•	
Boar	/ Lot r B1		Machine		CIN402	7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7	NM2544		

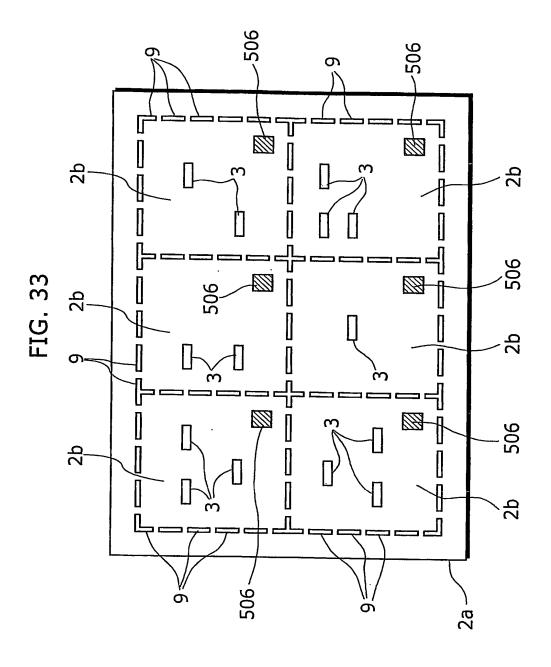
Z-axis 10 : Lot number lot0002 lot0003 2 : Mounted component information 507b Serial number ser0001 ser0002 : : Component Index:Idx03 1005C.R 1006C.R Index:Idx02 Index:Idx01 : : name Position X1, Y1 X2, Y2 X3, Y3

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FIG. 32



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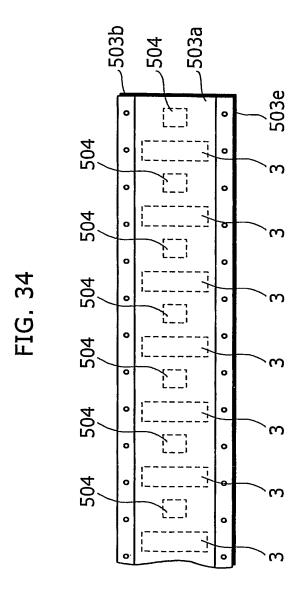


FIG. 35

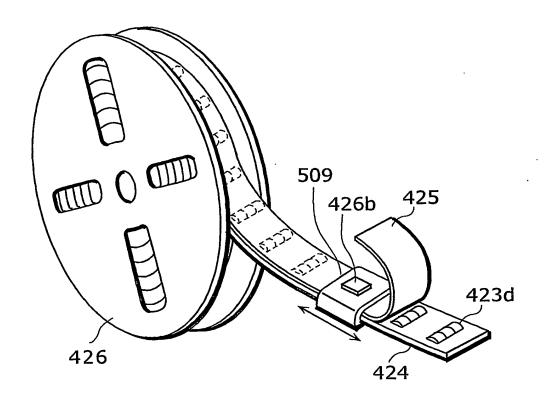


FIG. 36

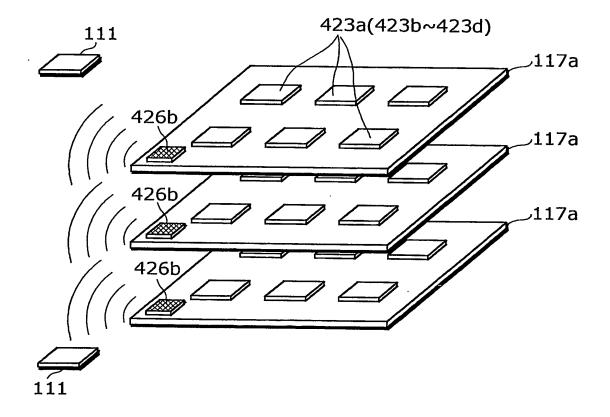


FIG. 37 111 111 426b ,426b ,426b 117b 117b 117b 423a < (423b ~423d) 423a < (423b ~423d) 423a < (423b ~423d)